

In the Claims:

1-18 (cancelled)

19. (New) An ATM network system comprising:

A1 a network device; and

a plurality of user devices,

wherein said network device receives a first specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with an identifier for identifying said user device on an information field from a user device, and transmits a second specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with the identifier and a non-allocated VPI value on an information field to said user device, and

B said user device acquires the identifier on first connection with said network device, transmits the first specific ATM cell after first connection with said network device, receives the second specific ATM cell, and holds the non-allocated VPI value as the specific VCI value when the identifier loaded in the second specific ATM cell is equal to the acquired identifier.

20. (New) The ATM network system according to Claim 19, wherein:

said user device includes a confirmation means for transmitting a third specific ATM cell which has a specific VPI value and a specific VCI value in its header, after holding the proper VPI value, and for receiving a fourth specific ATM cell which has a specific VPI value and a specific VCI value in its header; and

said network device includes a confirmation response means for transmitting a fourth specific ATM cell in response to the third specific ATM cell.

21. (New) The ATM network system according to Claim 20, wherein:

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said user device includes an initialization means for initializing the proper VPI value, wherein said initialization means transmits a fifth specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with an initializing request on an information field, and receives a sixth specific ATM cell which has a specific VPI value and a specific VCI value in its header; and

said network device includes a transmission means for transmitting the sixth specific ATM cell in response to said fifth specific ATM cell.

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22. (New) The ATM network system according to Claim 21, wherein:

said user device includes an initialization confirmation means for transmitting a seventh specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with an identifier for identifying said user device on an information field, after initializing the proper VPI value, and for receiving an eighth specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with the identifier and a non-allocated VPI value on an information field, and holds the non-allocated VPI value as the specific VCI value when the identifier loaded in the eighth specific ATM cell is equal to the acquired identifier; and

said network device includes an initialization confirmation response means for transmitting the eighth specific ATM cell in response to the seventh specific ATM cell.

23. (New) The ATM network system according to Claim 21, wherein:

a number of said user devices connected with a channel of said network device is limited within a prescribed number; and

the proper VPI value is different from each other within a channel of said network device which transmits the first specific ATM cell.

24. (New) The ATM network system according to Claim 21, wherein said transmission means transmits in response to the fifth specific ATM cell the sixth specific ATM cell towards all of said user devices which are connected with a channel of said network device.

25. The ATM network system according to Claim 24, further comprising:

a plurality of network terminals which are connected with the network device by channels.

26. (New) The ATM network system according to Claim 19, wherein said network device has VPI value allocation memory table which includes a plurality of communication VPI values every channel of network device, and flags for indicating whether the proper VPI value is allocated or not.

27. A VPI value allocation method for an ATM network system including a network device and a plurality of user devices, which comprises the steps of:

acquiring step for acquiring the identifier on first connection from a user device to said network device;

a first transmission step for transmitting a first specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with an identifier for

identifying said user device on an information field from said user device to said network device;

a second transmission step for transmitting in response to the first specific ATM cell a second specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with the identifier and a non-allocated VPI value on an information field to said user device; and

a holding step for holding the non-allocated VPI value as the specific VCI value in said user device, after receiving the second specific ATM cell.

28. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 27, which further comprises the steps of:

a third transmission step for transmitting a third specific ATM cell which has a specific VPI value and a specific VCI value in its header for notifying an arrival of said proper VPI value, from said user device to said network device;

a fourth transmission step for transmitting in response to the third specific ATM cell a fourth specific ATM cell which has a specific VPI value and a specific VCI value in its header; and

a receiving step for receiving the fourth specific ATM cell at said user device.

29. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 28, which further comprises said steps of:

a fifth transmission step for transmitting, from said user device to said network device, a fifth specific ATM cell which has a specific VPI value and a specific VCI value in

its header and is loaded with an initializing request on an information field for requesting an initialization of the proper VPI value;

a sixth transmission step for transmitting from said network device to said user device a sixth specific ATM cell which has a specific VPI value and a specific VCI value in its header for permitting the request, in response to the fifth specific ATM cell; and

an initializing step for initializing the proper VPI value held by said user device.

30. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 29, which further comprises the steps of:

a seventh transmission step for transmitting a seven specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with an identifier for identifying said user device on an information field for notifying an execution of said initialization, from said user device towards said network device, after said initializing step;

an eighth transmission step for transmitting in response to the seventh specific ATM cell an eighth specific ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with the identifier and a non-allocated VPI value on an information field from said network device to said user device; and

a receiving step for receiving the eighth specific ATM cell at said user device.

31. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 27, wherein:

a number of said user devices connected with a channel of said network device is limited within a prescribed number; and

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the proper VPI value is different from each other within a channel of said network device.

32. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 29, wherein said sixth transmission step said network device transmits in response to the fifth specific ATM cell the sixth specific ATM cell towards all of said user devices which are connected with a channel of said network device.

33. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 32, wherein a plurality of network terminals which are connected with the network device by channel.

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34. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 27, wherein said network device has VPI value allocation memory table which includes a plurality of communication VPI values every channel of network device, and flags for indicating whether the proper VPI value is allocated or not.

35. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices, which comprises the steps of:

a connection step for connecting said network device and a user device;

acquiring step for acquiring the identifier on first connection from a user device to said network device; and

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a sharing step for holding said VPI value in common by communication between said network device and said user device using a ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with the identifier for identifying said user device on an information field.

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36. (New) The VPI value allocation method for an ATM network system including a network device and a plurality of user devices according to Claim 35, which further comprises an initializing step for initializing the VPI value once held in common by communication between said network device and said user device using another ATM cell which has a specific VPI value and a specific VCI value in its header and is loaded with the identifier for identifying said user device on an information field.